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CIA/RR GB 64-15
May 1964

CLIMATIC DATA
FOR FOUR SOVIET BIOLOGICAL WARFARE SITES

In this report data on temperature, precipitation, and winds are presented in tabular form for four probable biological-warfare sites in the USSR: Ashkhabad, Lisy Island, Otar, and Semipalatinsk. Data for another probable BW site, Ostrov Vozrozhdeniya, are contained in CIA/RR GP 62-57:L, dated March 1962.

The climatic data are from [redacted] and appear^{25X1C}ently were based on long periods of observations. The exact number of years was not specified.

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GROUP 1
Excluded from automatic
downgrading and
declassification

SECRET**I. Arikhabad (37°57'N-58°25'E)**

Table 1
Temperature

	<u>Average</u>	<u>Average Daily Minimum</u>	<u>Absolute Maximum</u>	Degrees Fahrenheit
				<u>Absolute Minimum</u>
January	33.1	27.1	77.0	-9.4
February	38.8	31.3	82.4	-14.8
March	46.9	39.9	96.8	6.8
April	61.3	49.6	98.6	24.8
May	73.8	59.0	109.4	39.2
June	82.2	69.1	109.4	46.4
July	86.7	75.8	118.4	55.4
August	83.8	69.1	114.8	51.6
September	73.8	58.8	107.6	37.4
October	59.9	48.2	100.4	23.0
November	47.5	36.1	93.2	5.2
December	38.3	30.9	60.6	-9.4

Absolute minimum temperature: -14.8

Absolute maximum temperature: 118.4

Average daily temperature exceeds:

32.0	-- entire year	{ 365 days}
41.0	-- 21 February to 8 December	{ 290 days}
50.0	-- 18 March to 10 November	{ 237 days}
59.0	-- 11 April to 20 October	{ 192 days}
68.0	-- 29 April to 2 October	{ 156 days}
77.0	-- 23 May to 10 September	{ 110 days}
86.0	-- 4 July to 8 August	{ 35 days}

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Table 2

Precipitation

	<u>Average (Inches)</u>	<u>Maximum (Inches)</u>	<u>Minimum (Inches)</u>	<u>Number of Days With Thunderstorms</u>
January	0.9	2.0	0.1	0
February	1.3	2.4	0.1	0.4
March	1.7	4.9	0.1	1.0
April	1.5	5.0	0	4.0
May	1.0	2.8	0.1	6.0
June	0.4	2.0	0	4.0
July	0.2	1.5	0	2.0
August	0.1	1.1	0	1.0
September	0.1	0.5	0	0.6
October	0.4	2.1	0	0.9
November	0.7	2.8	0	0
December	0.6	1.9	0	0

Average annual precipitation: 8.9 inches

Maximum daily precipitation: 2.2 inches

Average number of days per year with snow cover: 16

Average date of first snow cover: 17 December

Average date of disappearance of snow cover: 17 February

Average maximum depth of snow cover (based on 10-day period of greatest depth): 1.6 inches

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Table 3

Direction, Frequency, and Velocity of Wind

<u>Direction</u>	<u>January</u>		<u>July</u>	
	<u>Frequency (Percent)</u>	<u>Velocity (Miles per Hour)</u>	<u>Frequency (Percent)</u>	<u>Velocity (Miles per Hour)</u>
N	19	4.3	39	6.7
NE	10	5.4	7	6.3
E	30	6.3	11	7.8
SE	22	4.9	9	4.9
S	5	3.6	7	1.8
SW	2	3.6	5	3.4
W	3	6.5	7	8.3
NW	9	7.2	15	8.1

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Table 4

Wind Velocity

	<u>Overall</u>	Direction								<u>Miles per Hour Average</u>
		<u>N</u>	<u>NE</u>	<u>E</u>	<u>SE</u>	<u>S</u>	<u>SW</u>	<u>W</u>	<u>NW</u>	
January	3.8	4.5	5.4	6.3	4.9	3.6	3.6	6.5	7.2	8.6
February	4.9	6.0	6.0	6.7	5.1	3.6	3.6	8.3	9.0	9.0
March	4.9	5.1	5.4	6.9	5.6	3.6	5.4	6.5	8.3	8.3
April	5.1	6.7	6.0	8.1	6.5	2.5	4.9	7.6	8.3	8.3
May	5.4	6.3	8.3	9.2	6.7	4.9	4.7	7.2	8.7	8.7
June	5.8	8.6	7.8	8.1	6.0	2.0	5.1	7.8	8.1	8.1
July	5.4	6.7	8.3	7.8	4.9	1.8	3.4	8.3	7.8	7.8
August	5.1	6.9	8.7	8.7	5.1	2.5	4.9	9.0	7.8	7.8
September	4.5	5.4	6.3	8.6	5.6	2.2	4.5	5.8	8.3	8.3
October	4.3	5.6	5.8	7.4	4.9	2.7	3.1	5.8	7.4	7.4
November	3.8	5.1	4.9	6.5	4.5	2.0	2.7	7.2	6.7	6.5
December	5.8	5.4	5.4	6.0	5.9	2.5	6.3	6.7	8.1	8.1
Annual	4.7	6.0	6.5	7.6	5.4	2.9	4.3	7.2	8.1	

Percent of observations that were calms: January -- 28; July -- 13

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SECRETII. Lisiy Island a/ (57°35'05"N-34°02'14"E)

Table 1

Temperature

	Degrees Fahrenheit Average
January	14.9
February	15.8
March	23.9
April	38.1
May	52.2
June	58.6
July	63.3
August	59.2
September	50.0
October	38.8
November	28.0
December	18.7

Absolute minimum temperature: -54

Absolute maximum temperature: 93.2

Period when average daily temperature
is less than 32: 4 November to
4 April (149 days)

a. Climatic data are not available for Lisiy Island; therefore, data for Vyschnyy Volochek (57°35'N-34°03'E), 5 miles to the east, have been substituted.

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Table 2

Precipitation

	<u>Inches</u>
	<u>Average</u>
January	1.4
February	1.5
March	0.9
April	1.0
May	2.2
June	3.0
July	3.3
August	3.1
September	2.4
October	2.0
November	1.2
December	1.4

Average annual precipitation: 23.2 inches

Average number of days per year with snow cover: 149

Average date of first snow cover: 27 October

Average date of disappearance of snow cover: 20 April

Average maximum depth of snow cover (based on 10-day period of greatest depth): 19.7 inches

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Table 3
Direction, Frequency, and Velocity of Wind

<u>Direction</u>	January		July	
	Frequency (Percent)	Velocity (Miles per Hour)	Frequency (Percent)	Velocity (Miles per Hour)
N	7	6.6	10	5.8
NE	4	6.5	10	5.1
E	5	5.4	7	5.4
SE	20	7.8	15	6.0
S	22	7.8	11	6.5
SW	17	6.6	17	6.0
W	15	8.7	16	6.9
NW	10	8.5	14	5.8

Percent of observations that were calm: January -- 28; July -- 13

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III. Otar (43°32'N-75°12'E)

Table 1
Temperature

	Degrees Fahrenheit
	Average
January	14.4
February	18.7
March	34.5
April	49.6
May	60.6
June	71.1
July	74.8
August	72.9
September	61.0
October	46.6
November	33.5
December	19.9

Absolute minimum temperature: -38.2

Absolute maximum temperature: 109.4

Period when average daily temperature
is less than 32: 15 November to
11 March (116 days)

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Table 2

Precipitation

Monthly precipitation data are not available.

Average annual precipitation: 10.7 inches

Average number of days per year with snow cover: 90

Average date of first snow cover: 17 November

Average date of disappearance of snow cover: 25 March

Average maximum depth of snow cover (based on 10-day period of greatest depth): 5.5 inches

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Table 5
Direction, Frequency, and Velocity of Wind

<u>Direction</u>	January		July	
	<u>Frequency</u> <u>(Percent)</u>	<u>Velocity</u> <u>(Miles per Hour)</u>	<u>Frequency</u> <u>(Percent)</u>	<u>Velocity</u> <u>(Miles per Hour)</u>
N	8	3.8	11	6.9
NE	9	4.5	15	7.4
E	53	4.7	16	7.4
SE	6	5.1	7	5.8
S	2	2.7	4	4.7
SW	6	9.0	16	9.4
W	24	7.4	20	8.4
NW	10	5.4	11	6.9

Percent of observations that were calms: January -- 55; July -- 24

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IV. Semipalatinsk (50°28'N-80°13'E)

Table 1

Temperature

	Degrees Fahrenheit	Average
January	3.0	
February	3.9	
March	16.0	
April	38.8	
May	57.0	
June	69.6	
July	71.8	
August	67.8	
September	55.8	
October	40.6	
November	21.0	
December	7.7	

Absolute minimum temperature: -56.2

Absolute maximum temperature: 107.6

Average daily temperature exceeds:

32	--	6 April to 28 October	(205 days)
41	--	18 April to 13 October	(178 days)
50	--	1 May to 27 September	(149 days)
59	--	19 May to 9 September	(113 days)

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Table 2
Precipitation

Average (Inches)	Maximum Daily (Inches) as Observed in Period of			Maximum (Inches)	Minimum (Inches)	Number of Days With Thunderstorms
	1 Year	10 Years	20 Years			
January	.6	.2	.5	.6	2.0	0.1
February	.5	.2	.4	.5	1.3	0
March	.6	.2	.4	.5	2.2	0
April	.6	.3	.6	.7	1.8	0
May	.9	.5	.8	.9	3.2	0
June	1.5	.5	1.1	1.4	3.6	0.1
July	1.4	.5	1.2	1.4	4.7	5.0
August	.9	.4	.8	.9	2.7	0
September	.6	.3	.8	.9	2.1	0.1
October	1.0	.3	.7	.8	2.5	0
November	1.0	.3	.9	1.1	5.0	0.1
December	.8	.2	.5	.5	2.0	0

Average annual precipitation: 10.5 inches

Average date of disappearance of snow cover:
8 April

Maximum daily precipitation: 1.5 inches

Average maximum depth of snow cover (based
on 10-day period of greatest depth):
11.8 inches

Average date of first snow cover: 24 October

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Table 5
Direction, Frequency, and Velocity of Wind

<u>Direction</u>	January		July	
	<u>Frequency</u> <u>(Percent)</u>	<u>Velocity</u> <u>(Miles per Hour)</u>	<u>Frequency</u> <u>(Percent)</u>	<u>Velocity</u> <u>(Miles per Hour)</u>
N	1	5.1	20	7.8
NE	4	7.4	15	7.6
E	30	7.6	14	6.0
SE	16	9.2	6	6.7
S	9	10.7	5	6.5
SW	16	11.0	8	10.7
W	12	6.7	18	9.2
NW	4	7.4	16	7.6

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Table 4

Wind Velocity

	<u>Miles per Hour</u>
	<u>Average</u>
January	9.2
February	8.5
March	9.4
April	9.0
May	8.3
June	7.6
July	6.9
August	6.5
September	7.2
October	8.1
November	9.9
December	9.0
Annual	8.3

Percent of observations that were calm:
January -- 7; July -- 1

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Approved For Release 2001/04/27 : CIA-RDP79T019A00020011001-6
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Title of Report CLIMATIC DATA FOR FOUR SOVIET BIOLOGICAL WARFARE Date May 1964
SITES Classification / SECRET

Report No. CIA/RR GB 64-15 PN 64.1726 B

100-1001

Requester [REDACTED] ABCD/OSI

Analyst/Branch [REDACTED] GG/S Graphics None

25X1A

<u>Copy No.</u>	<u>To</u>	<u>Date</u>
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